

Notice of Allowability	Application No.	Applicant(s)	
	09/783,598	MORIIZUMI, KIYOKAZU	
	Examiner	Art Unit	
	Tuan T. Dinh	2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/13/08 and interview on 04/16/09.
2. ☒ The allowed claim(s) is/are 1,3,5 (renumber claims are 1-3).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>04/16/09</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/CB),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

/Tuan T Dinh/
Primary Examiner, Art Unit 2841

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Sadao Kinashi (Reg. No. 48,075) on 04/16/09.

The application has been amended as follows:

a) **For the title:**

Please, change "FRONT-AND-BACK ELECTRICALLY CONDUCTIVE SUBSTRATE AND METHOD FOR MANUFACTURING SAME" to - - **FRONT-AND-BACK ELECTRICALLY CONDUCTIVE SUBSTRATE** - - because there is/are no method claim(s) belongs to this application.

b) **For claim 1:**

Claim 1 (**Twice-Currently amended**): A front-and-back electrically conductive substrate comprising:

a plurality of silicon posts extending through said substrate, said silicon posts being formed by etching silicon using anisotropical etching and each of the silicon posts having an electrically conductive portion that has at least a first surface on one side of said substrate and a second surface on another side of said substrate; [[and]]

an insulative substrate that supports the plurality of silicon posts, wherein a side face of each of said silicon posts is covered by electrically conductive film so as to provide electrical contact between said one side and said other side of the substrate;
and

a pad for mounting a semiconductor component formed on at least the first surface of the front-and-back electrically conductive substrate,

wherein the insulation material of the insulative substrate includes a material that compensates a difference in a coefficient of thermal expansion between the insulation material and the mounted semiconductor component.

Claim 4 (**Cancelled**).

Claim 6 (**Cancelled**).

Claims 7-16 (**Cancelled**).

Allowable Subject Matter

2. Claims 1, 3, and 5 are allowed (renumber claims are 1-3).

The following is an examiner's statement of reasons for allowance: in response to remarks and claimed amendments made in Applicant's Amendment filed on 01/18/07, and further, with amendment claim 1 as in examiner's amendment made (see above), applicant's arguments are persuasive. Amended claims (as in examiner's amendment, claim 1) have been considered and upon conclusion of a comprehensive search of the prior arts. The Office indicates that the claims, as amended, are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reichard Dean can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan T Dinh/
Primary Examiner, Art Unit 2841.